

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



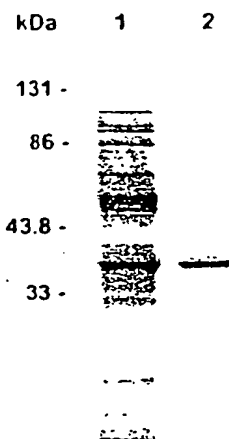
(43) International Publication Date
27 March 2003 (27.03.2003)

PCT

(10) International Publication Number
WO 03/024410 A2

- (51) International Patent Classification⁷: **A61K**
- (74) Agents: **MOTSENBOCKER, MARVIN, A. et al.**; Heller Ehrman White & McAuliffe LLP, 1666 K Street, N.W., Suite 300, Washington, DC 20006-1228 (US).
- (21) International Application Number: **PCT/US02/30099**
- (22) International Filing Date:
23 September 2002 (23.09.2002)
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/960,472 21 September 2001 (21.09.2001) US
60/324,089 24 September 2001 (24.09.2001) US
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, SI, SK, SL, TJ, TM, TN, TR, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): **NEW HORIZONS DIAGNOSTICS, INC.** [US/US]; 9110 Red Branch Road, Columbia, MD 21045 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **FISCHETTI, Vincent** [US/US]; 448 Joan Court, West Hempstead, NY 11552 (US). **LOEFFLER, Jutta** [CH/US]; Apt. 12h, 500 East 63rd Street, New York, NY 10021 (US). **NELSON, Daniel** [US/US]; Apt. 13S, 504 East 63rd Street, New York, NY 10021 (US). **LOOMIS, Lawrence** [US/US]; 11374 Buckelberry Path, Columbia, MD 21044 (US).
- Published:**
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: THE USE OF BACTERIAL SHUFFLED AND CHIMERIC PHAGE ASSOCIATED LYTIC ENZYMES FOR THE PROPHYLACTIC AND THERAPEUTIC TREATMENT OF COLONIZATION AND INFECTIONS CAUSED BY STREPTOCOCCUS PNEUMONIAE



(57) Abstract: A method for the prophylactic and therapeutic treatment of Streptococcal pneumoniae infections is disclosed which comprises the treating of an individual with an effective amount of an unaltered lytic enzyme, a chimeric and/or a shuffled lytic enzyme composition specific for the infecting bacteria, and a carrier for delivering the enzyme(s). This method, and composition can be used for the treatment of upper respiratory infections, lower respiratory infections, septicemia, bacterial meningitis, and other infections involving Streptococcal pneumoniae.

WO 03/024410 A2